



EPA Region 5 Records Ctr.



Solutia Inc.
575 Maryville Centre Drive
St. Louis, Missouri 63141

P.O. Box 66760
St. Louis, Missouri 63166-6760
Tel: 314-674-1000

November 14, 2003

Mr. Nabil S. Fayoumi
U. S. Environmental Protection Agency - Region 5
Superfund Division
77 West Jackson Boulevard (SR-6J)
Chicago, Illinois 60604-3590

**Re: Stormwater Treatment System
Slurry Wall Excavation, Sauget Area 2, Sauget, Illinois**

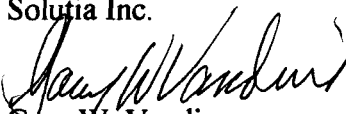
Dear Mr. Fayoumi:

Enclosed is the revised stormwater design including the flocculation system.

If you have any questions, please call me.

Sincerely,

Solutia Inc.


Gary W. Vandiver
Project Coordinator

cc. Sandra Bron - IEPA
Linda Tape - Husch & Eppenberger
Mike Coffey - USF&W
Tim Gouger - USACE
Peter Barrett - CH2M Hill

Steven Acree - USEPA
Ken Bardo - USEPA
Richard Williams - Solutia
Bruce Yare - Solutia
Cathy Bumb - Solutia

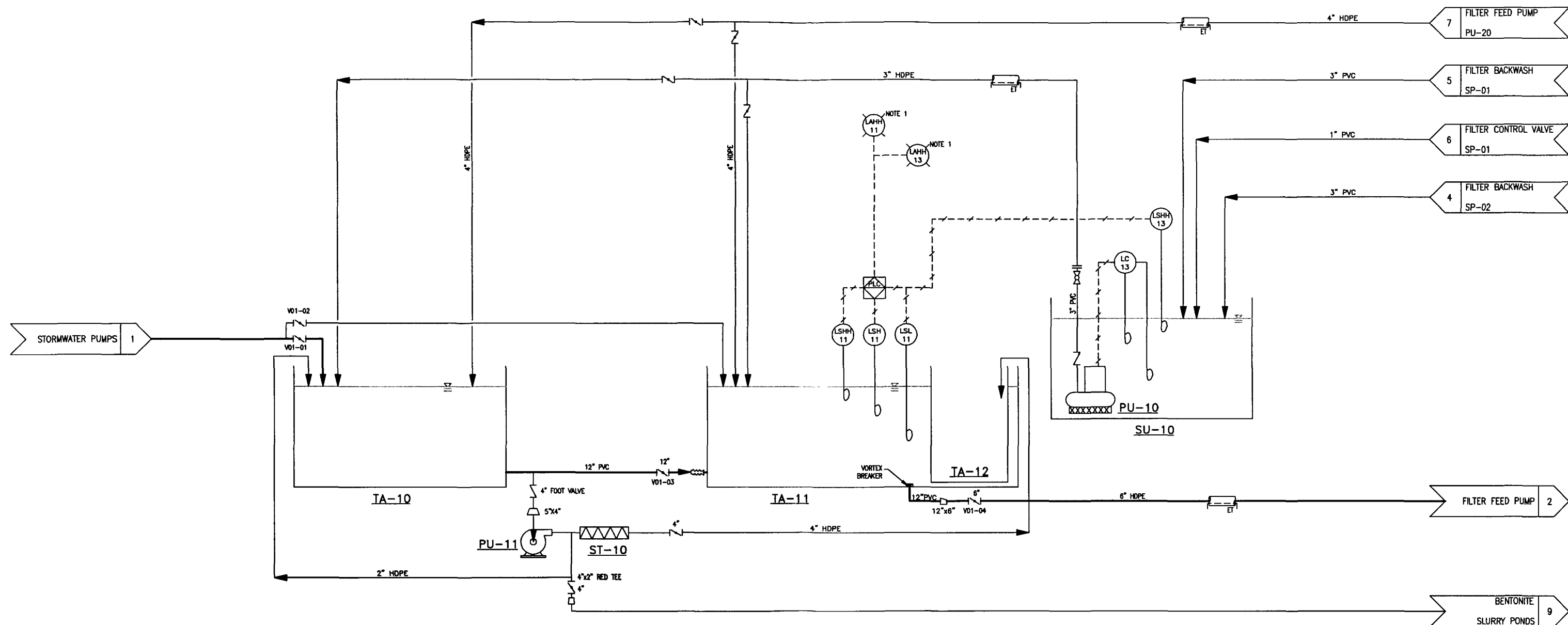
<u>DRAWING NO.</u>	<u>TITLE</u>
PID-01	PIPING AND INSTRUMENTATION DIAGRAM STORMWATER STORAGE.
PID-02	PIPING AND INSTRUMENTATION DIAGRAM STORMWATER FILTRATION SKID ASSEMBLY.
PID-03	PIPING AND INSTRUMENTATION DIAGRAM CARBON TREATMENT.
GA-01	STORMWATER TREATMENT SYSTEM GENERAL ARRANGEMENT.
GA-02	STORMWATER TREATMENT SYSTEM GENERAL ARRANGEMENT.

<u>DRAWING NO.</u>	<u>TITLE</u>
GA-03	FLOCCULATION SYSTEM GENERAL ARRANGEMENT.
P-01	STORMWATER TREATMENT SYSTEM SECTIONS & DETAILS.
P-02	STORMWATER TREATMENT SYSTEM SECTIONS & DETAILS.
M-01	FLOCCULATION TANK DETAILS.



THE *ADVENT* GROUP, INC

Nashville, Tennessee
ADVENT PROJECT NO. 03637



ST-10
STATIC IN-LINE MIXER
KOFLO SERIES 328

PU-10
BACKWASH COLLECTION PUMP
150 GPM @ 25' TDH
2 HP, 1,750 RPM
460V 3PH
HYDROMATIC, ZOELLER OR APPROVED EQUAL
MAT'L OF CONST: CI


SU-10
BACKWASH COLLECTION SUMP
DIMENSION: 5' x 5'-0" H
OPERATING CAPACITY: 360 GAL.
MAT'L OF CONST: CONCRETE

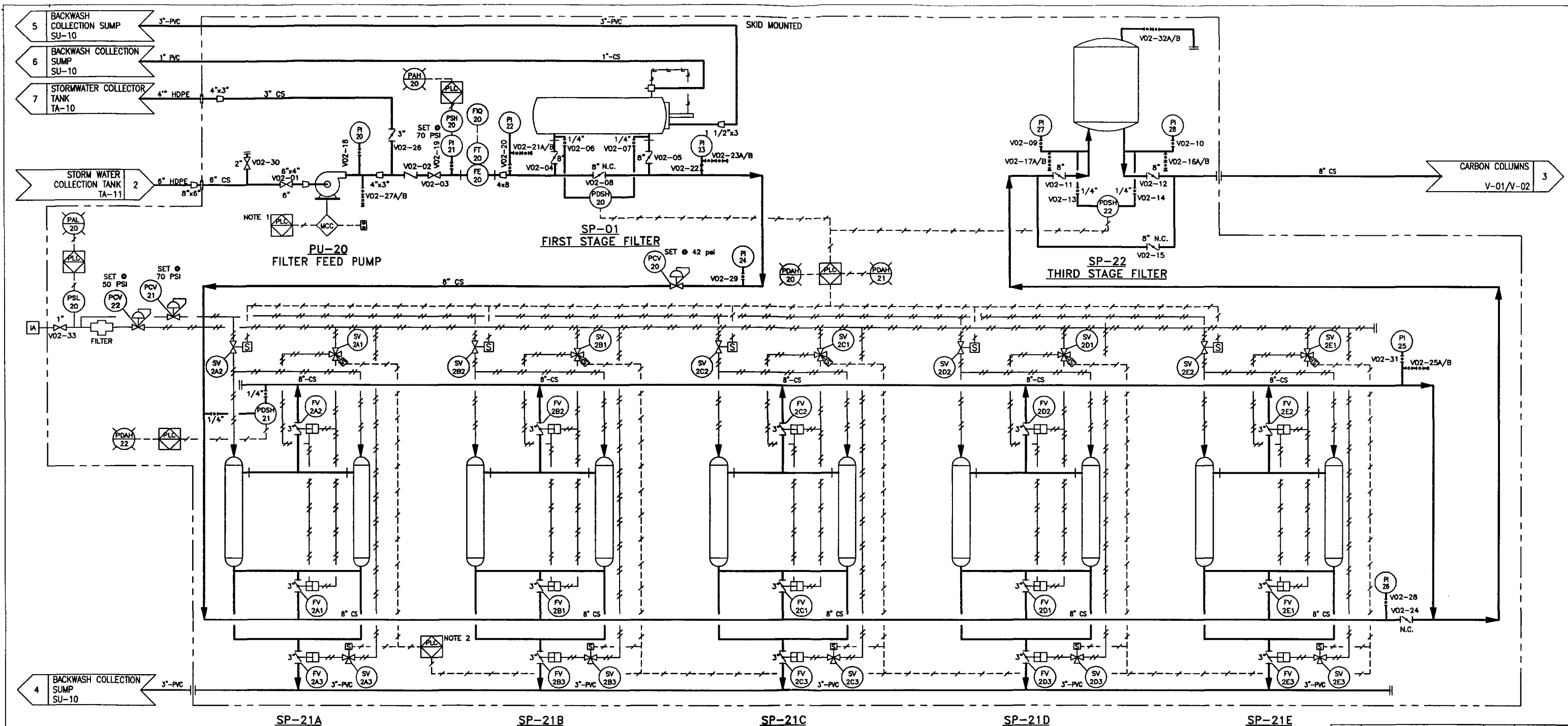
IA-10/IA-11
STORMWATER COLLECTION TANK
DIMENSION: 60'-6" x 124'-3" x 4'-9"
OPERATING CAPACITY: 253,000 GAL.
MAT'L OF CONST: STEEL WALL PANEL
WITH 45 MIL. PP LINER

PU-11
CENTRIFUGAL PUMP

IA-12
FLOCCULATION TANK
MAT'L OF CONST: STEEL

NOTES:
1. ALARM INPUT TO AUTODIALER.

Q	FOR CONSTRUCTION	11/13/03	SGB	WWL
REV	DESCRIPTION	DATE	APPR. BY	MADE BY
REVISIONS				
BY	DATE	APPR.	BY	DATE
DRAWN WWL	7/14/03	APPR. CSR		7/18/03
CHKD. SGB	7/18/03			
SCALE:	N.T.S.			
 THE ADVENT GROUP, INC. Nashville, Tennessee				
PIPING AND INSTRUMENTATION DIAGRAM STORMWATER STORAGE SOLUTIA KRUMMRICH SAUGET, ILLINOIS				
CONTRACT NO.	DRAWING NO.	REV.		
03637	PID-01	0		



SP-21A

SP-21B

SP-21C

SP-21D


SP-21E

**SP-21A/B/C/D/E
SECOND STAGE FILTERS**

NOTES:

- PUMP ACTIVATION IS INTERLOCKED WITH LSH-11 LOCATED IN THE STORMWATER COLLECTION TANK (TA-11). PUMP DEACTIVATION IS INTERLOCKED WITH LSL-11 LOCATED IN THE STORMWATER COLLECTION TANK (TA-11), LSHH-11 LOCATED IN THE BACKWASH COLLECTION SUMP (SU-10), AND PSH-20 LOCATED AT PU-20 DISCHARGE.
- BACKWASH SEQUENCED, ONLY ONE DUAL UNIT OFF-LINE FOR CLEANING.
- PLC TO GENERATE ALARM OUTPUT FOR THE FOLLOWING CONDITIONS:
 - HIGH HIGH LEVEL TANK TA-11 (LSHH-11)
 - HIGH DIFFERENTIAL PRESSURE FILTER 1 (PDAH-20)
 - HIGH DIFFERENTIAL PRESSURE FILTER 2 (PDAH-21)
 - HIGH DIFFERENTIAL PRESSURE FILTER 3 (PDAH-22)
 - HIGH HIGH LEVEL BACKWASH COLLECTION SUMP (LSHH-13)
 - HIGH PRESSURE FILTER FEED PUMP (PSH-20)
 - LOW PRESSURE INSTRUMENT AIR (PSL-20)
 - PRESSURE ALARMS (PDAH-20/21/22, PAH-20, PAL-20) TO AUTODIALER.

LAST VALVE NO.: V02-33

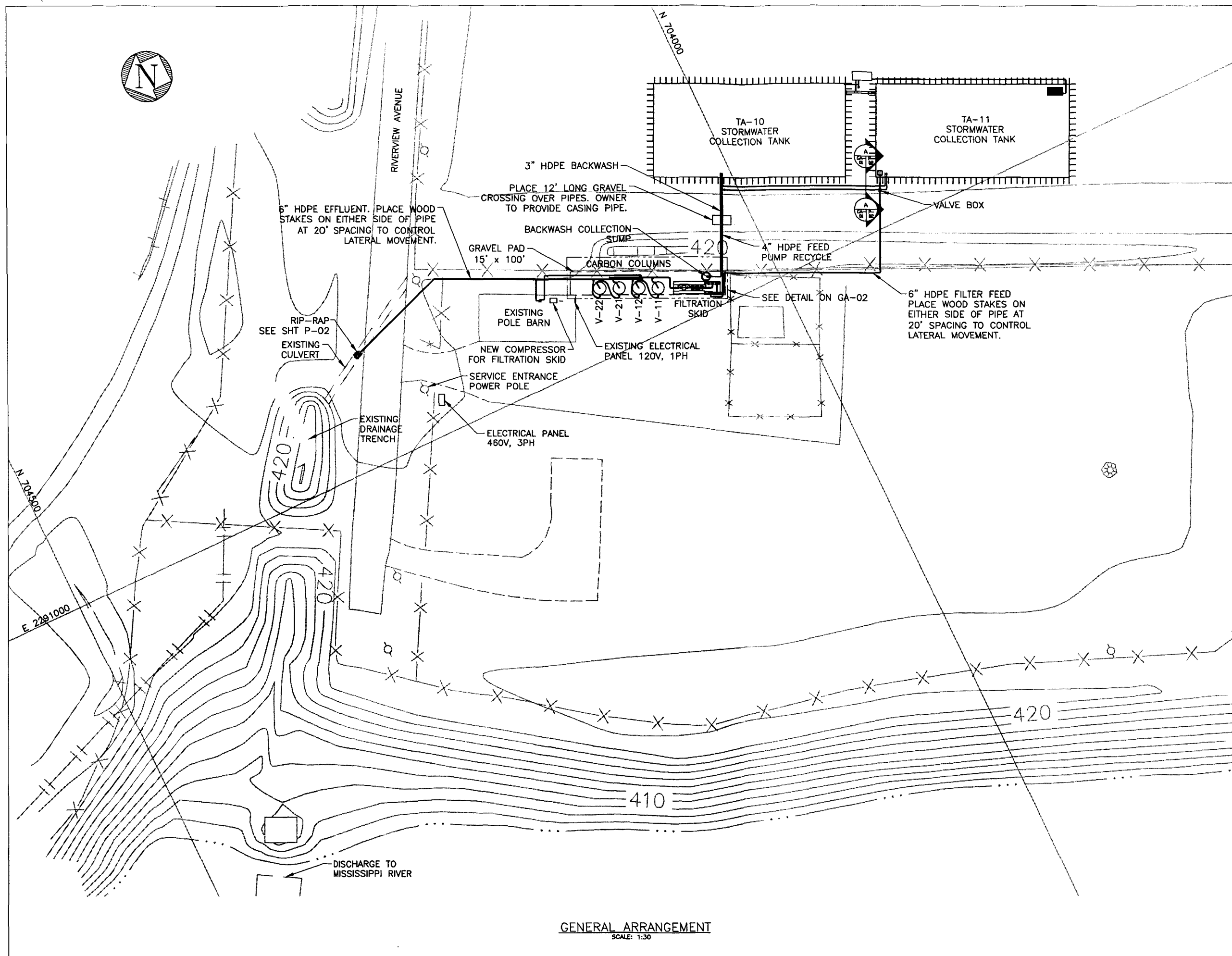
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CHKD. SGB	7/18/03			
SCALE: N.T.S.				
 THE ADVENT GROUP, INC. Nashville, Tennessee				
PIPING AND INSTRUMENTATION DIAGRAM STORMWATER FILTRATION SKID ASSEMBLY				
SOLUTIA KRUMMRICH SAUGET, ILLINOIS				
CONTRACT NO.	DRAWING NO.	REV.		
03637	PID-02	0		

PU-20
FILTER FEED PUMP
400 GPM @ 140' TDH
25 HP, 3,500 RPM
460 V 3 PH
MAT'L OF CONST: DI

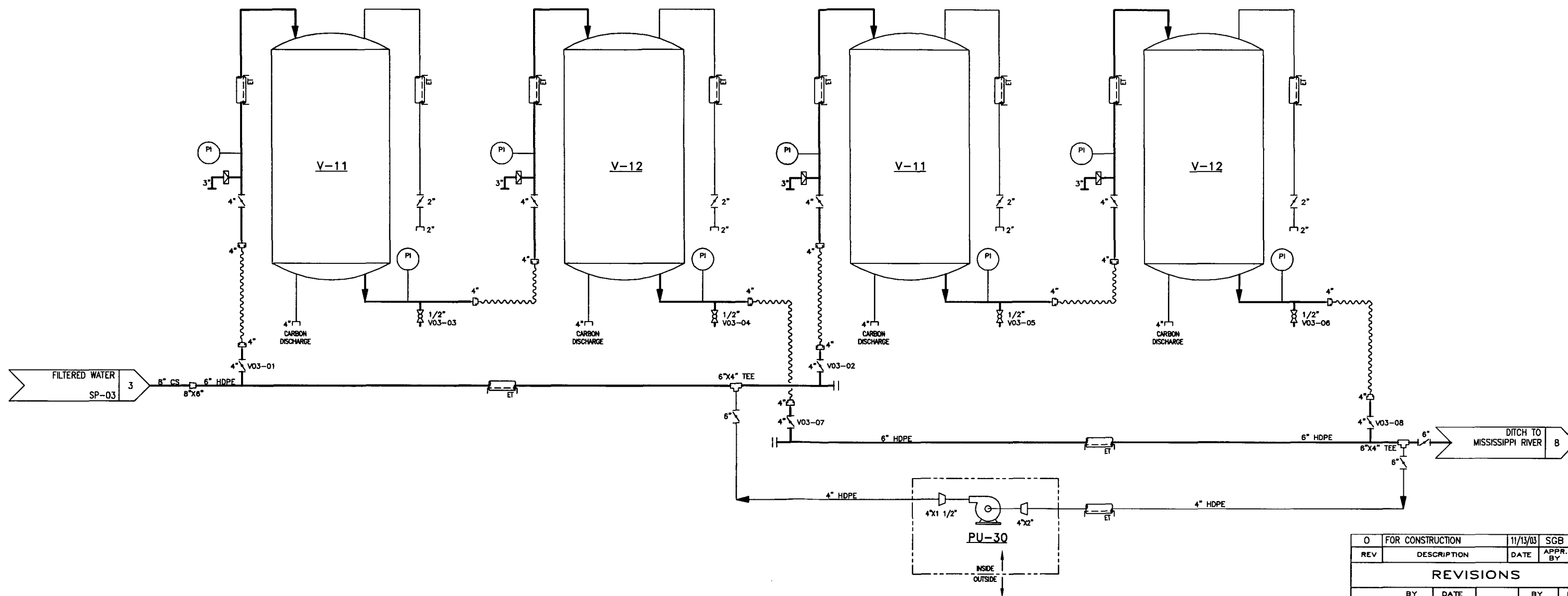
SP-20
FIRST STAGE FILTER
8"-400 GPM
25 MICRON FILTER
AUTOMATIC SELF CLEANING
MAT'L OF CONST: CS

SP-21A/B/C/D/E
SECOND STAGE FILTERS
5 DUAL UNITS
10 HOUSINGS, 50 GPM EACH
5 MICRON BAG FILTER
AUTOMATIC BACKWASH
MAT'L OF CONST: CS

SP-22
THIRD STAGE FILTER
400 GPM
36" VESSEL
12~30" L FILTERS
1 MICRON PLEATED BAG FILTER
MAT'L OF CONST: CS




A	FOR CONSTRUCTION	11/13/03	SGB	RLR
REV	DESCRIPTION	DATE	APPR. BY	MADE BY
REVISIONS				
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BY	DATE	BY	DATE	
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CHKD.	SGB 7/18/03			
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STORMWATER TREATMENT SYSTEM GENERAL ARRANGEMENT				
SOLUTIA KRUMMRICH SAUGET, ILLINOIS				
CONTRACT NO.		DRAWING NO.		REV.
03637		GA-01		0



V-11/V-12
MOBILE ADSORBER UNIT
DIAMETER: 7'-10"
CARBON CAPACITY: 12,000 lb
FLOW RATE: TO 225 GPM
MANUFACTURER: CALGON CARBON CORP.

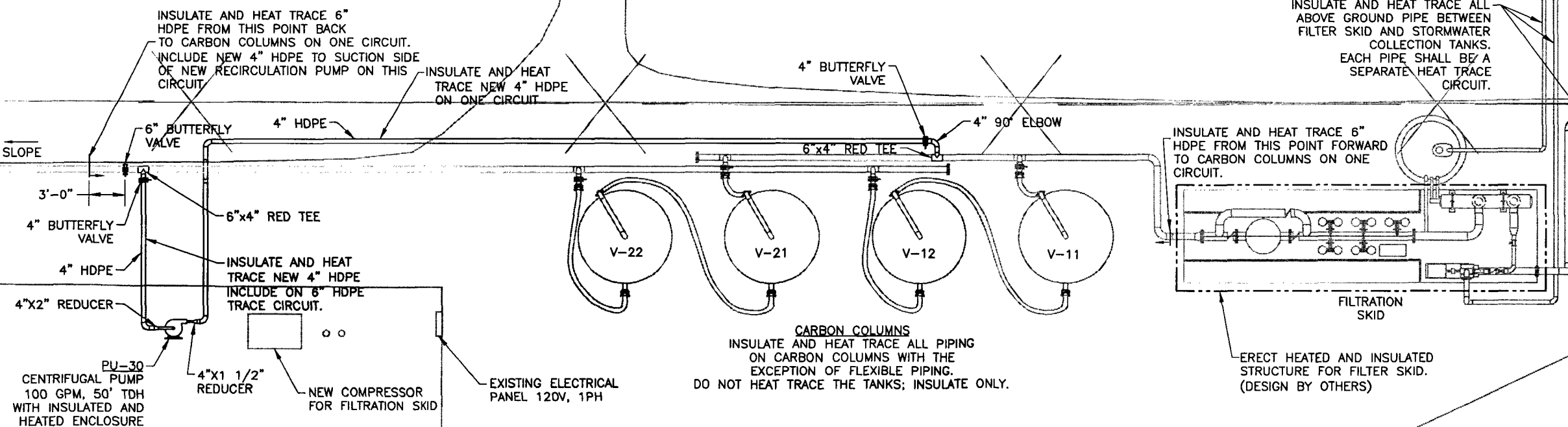
V-21/V-22
MOBILE ADSORBER UNIT
DIAMETER: 7'-10"
CARBON CAPACITY: 12,000 lb
FLOW RATE: TO 225 GPM
MANUFACTURER: CALGON CARBON CORP.

PU-30
RECIRCULATION PUMP
100 GPM @ 50' TDH
3 HP, 1750 RPM
460 V, 3 PH
GOULDS 3656

O	FOR CONSTRUCTION	11/13/03	SGB	WWL
REV	DESCRIPTION	DATE	APPR. BY	MADE BY
REVISIONS				
BY	DATE	APPR.	BY	DATE
DRAWN WWL	7/14/03	APPR. CSR		7/18/03
CHKD. SGB	7/18/03			
SCALE: N.T.S.				
 THE ADVENT GROUP, INC. Nashville, Tennessee				
PIPING AND INSTRUMENTATION DIAGRAM CARBON TREATMENT				
SOLUTIA KRUMMRICH SAUGET, ILLINOIS				
CONTRACT NO.	DRAWING NO.	REV.		
03637	PID-03	0		



SLOPE



NOTE:
CONCRETE INSULATED BLANKETS CAN BE USED TO WRAP THE CARBON COLUMNS AND MOST OF THE HDPE PIPE. PIPING ATTACHED TO THE CARBON COLUMN AND SHORT RUNS OF HDPE WHERE THE CONCRETE BLANKETS CAN NOT BE USED SHALL BE INSULATED WITH 1 1/2" THICK FIBERGLASS PIPE INSULATION AND AN ALUMINUM JACKET.

CARBON COLUMNS
INSULATE AND HEAT TRACE ALL PIPING ON CARBON COLUMNS WITH THE EXCEPTION OF FLEXIBLE PIPING. DO NOT HEAT TRACE THE TANKS; INSULATE ONLY.

ERECT HEATED AND INSULATED STRUCTURE FOR FILTER SKID. (DESIGN BY OTHERS)

GENERAL ARRANGEMENT
SCALE: 3/16"=1'-0"

REV	DESCRIPTION	DATE	APPR. BY	MADE BY
0	FOR CONSTRUCTION	11/13/03	SGB	RLR

REVISIONS

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BY	DATE	BY	DATE
DRAWN WWL	10/10/03	APPR. CSR	10/10/03
CHKD. SGB	10/10/03		

SCALE: 3/16"=1'-0" DWG SIZE: D
FILE LOCATION: L:\DATA\03637\CAD\CURRENT\GA-02.DWG



THE ADVENT GROUP, INC.
NASHVILLE, TENNESSEE

STORMWATER TREATMENT SYSTEM
GENERAL ARRANGEMENT

SOLUTIA KRUMMRICH
SAUGET, ILLINOIS

CONTRACT NO.	DRAWING NO.	REV.
03637	GA-02	0



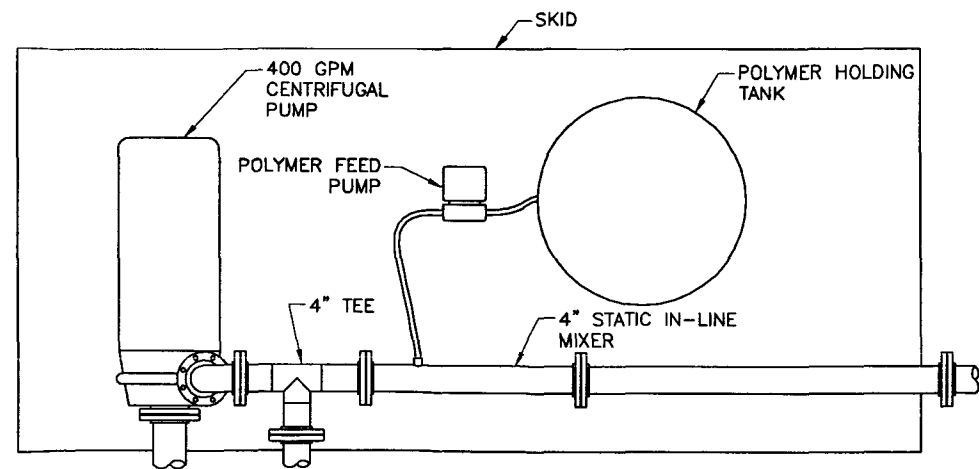
POLYMER FEED SYSTEM IN
INSULATED, HEATED ENCLOSURE.
SEE DETAIL THIS SHEET

SLOPE TO DRAIN

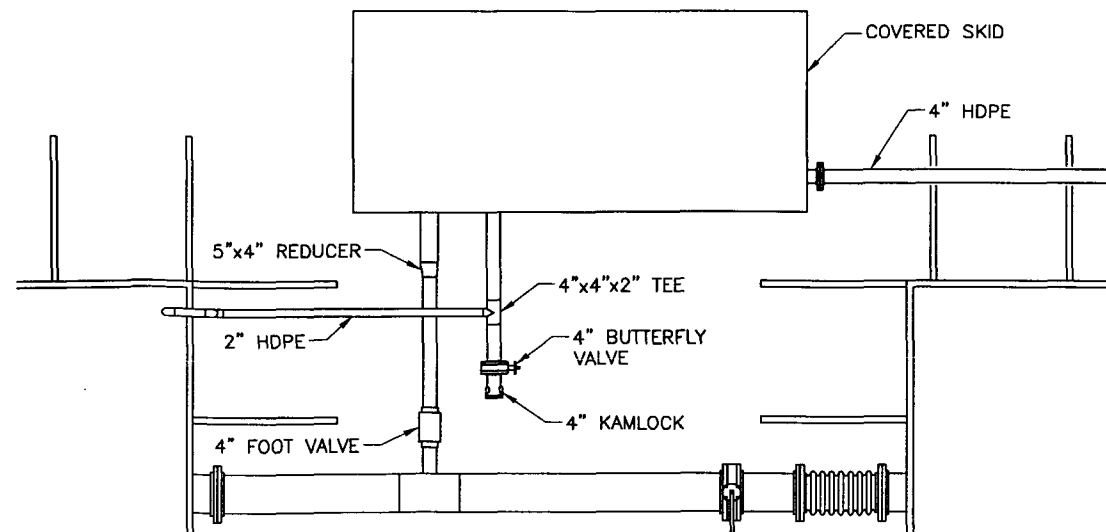
4" HDPE

FLOCCULATION TANK
SEE SHEET M-01


PLAN VIEW
SCALE: 1/8"=1'-0"

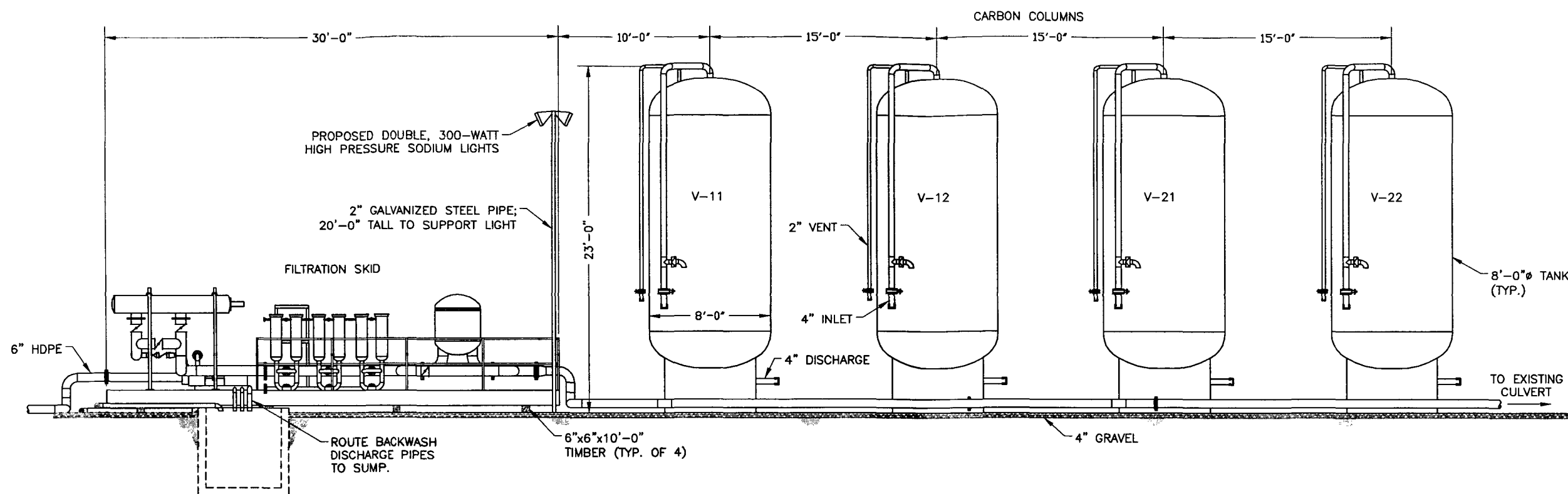


POLYMER FEED SYSTEM DETAIL
SCALE: 3/4"=1'-0"

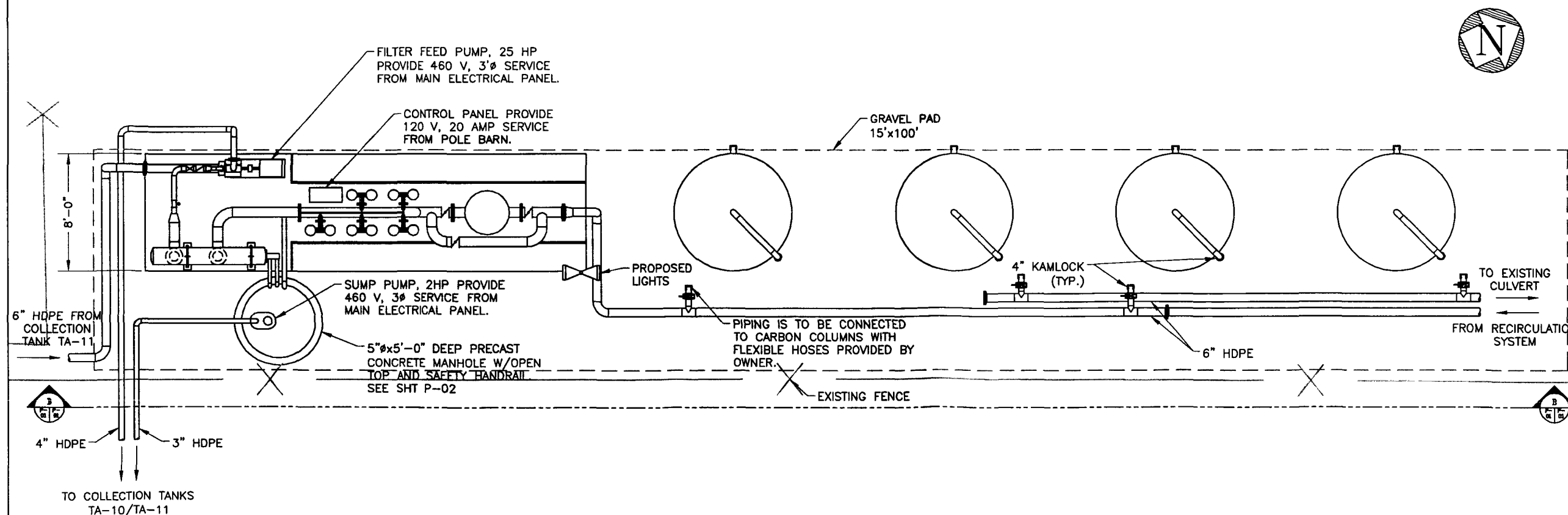


PIPING DETAIL
SCALE: 3/8"=1'-0"

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REV	DESCRIPTION	DATE	APPR. BY	MADE BY	
REVISIONS					
<div>012</div>					
BY	DATE		BY	DATE	
DRAWN	RLR	10/6/03	APPR.	CSR	10/6/03
CHKD.	GB	10/6/03			
SCALE: 1/8" = 1'-0"		DWG SIZE: D			
FILE LOCATION: L:\DATA\03637\CAD\CURRENT\GA-03.DWG					
<div> THE ADVENT GROUP, INC. NASHVILLE, TENNESSEE</div>					
FLOCCULATION SYSTEM GENERAL ARRANGEMENT					
SOLUTIA KRUMMRICH SAUGET, ILLINOIS					
CONTRACT NO. 03637		DRAWING NO. GA-03		REV. 0	



SECTION B-B
SCALE: 1/4" = 1'-0"



PLAN VIEW
SCALE: 1/4" = 1'-0"

NOTE: VALVES TO BE SPEARS OR APPROVED EQUAL.

0	FOR CONSTRUCTION	7/31/03	SGB	RLR
REV	DESCRIPTION	DATE	APPR BY	MADE BY
REVISIONS				
<div>0<div></div>1<div></div>2</div>				
BY		DATE		
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CHKD.	SGB	7/31/03		
SCALE: 1/4" = 1'-0"		DWG SIZE: D		
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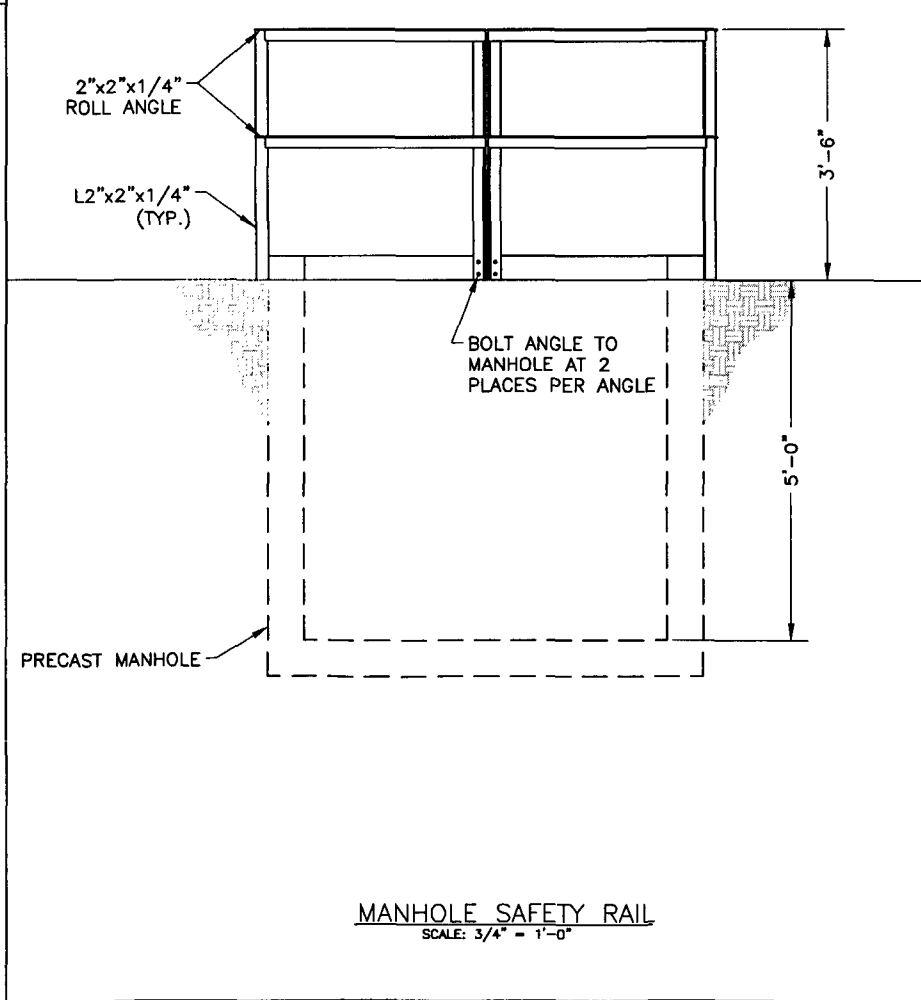
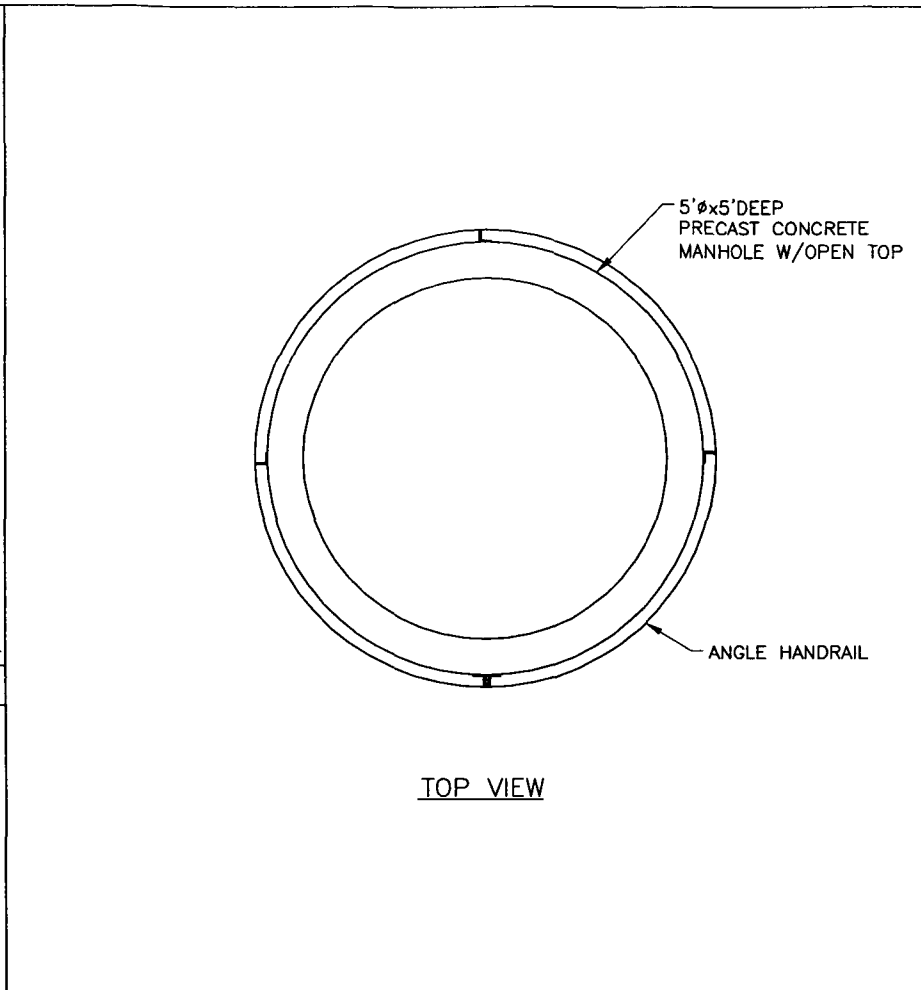
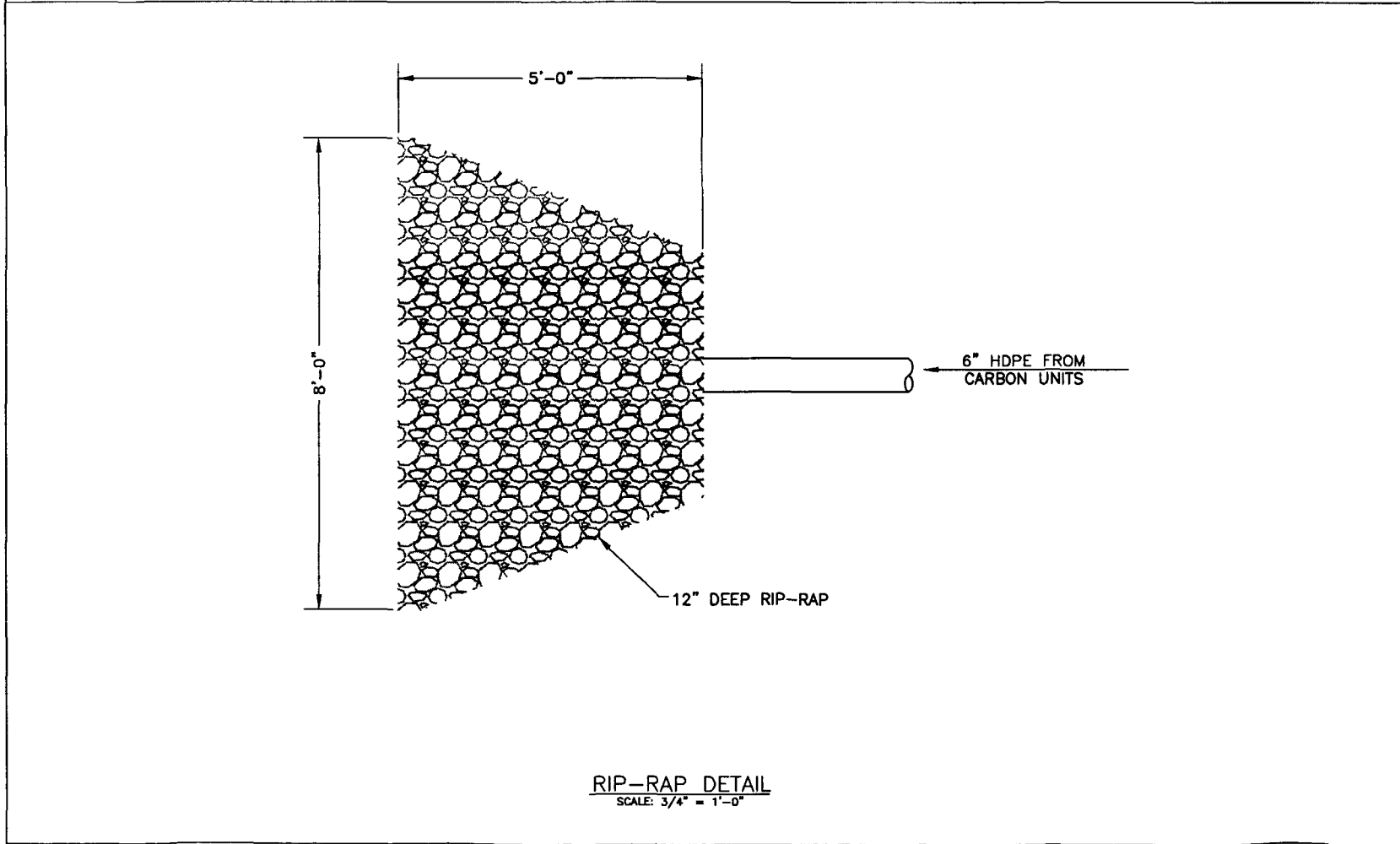
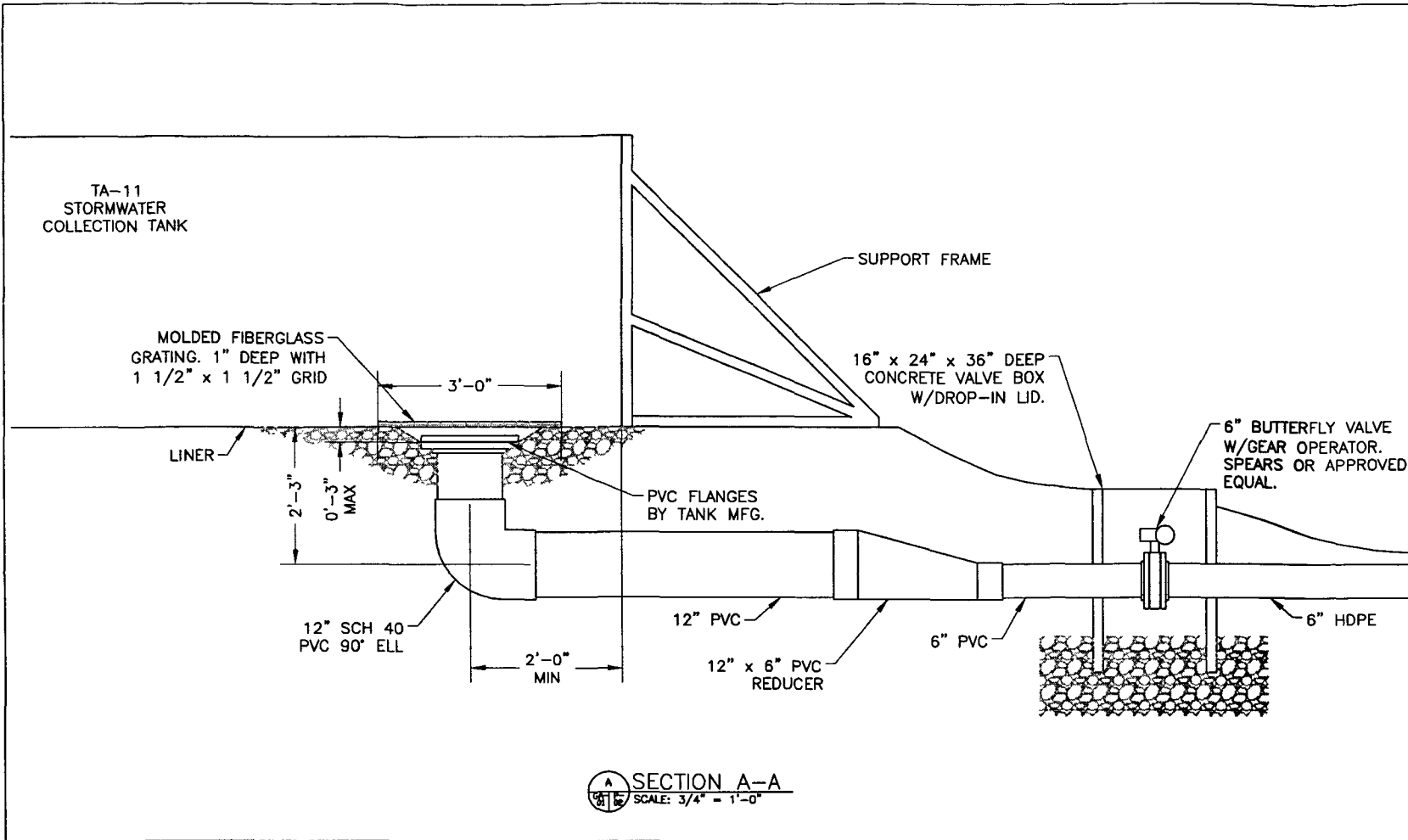



THE ADVENT GROUP, INC.
NASHVILLE, TENNESSEE

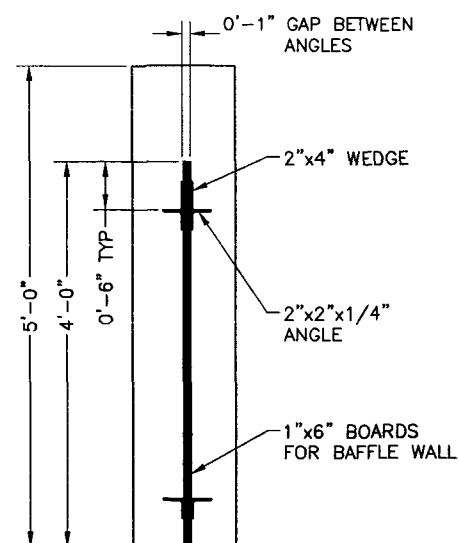
STORMWATER TREATMENT SYSTEM
SECTIONS & DETAILS

SOLUTIA KRUMMRICH
SAUGET, ILLINOIS

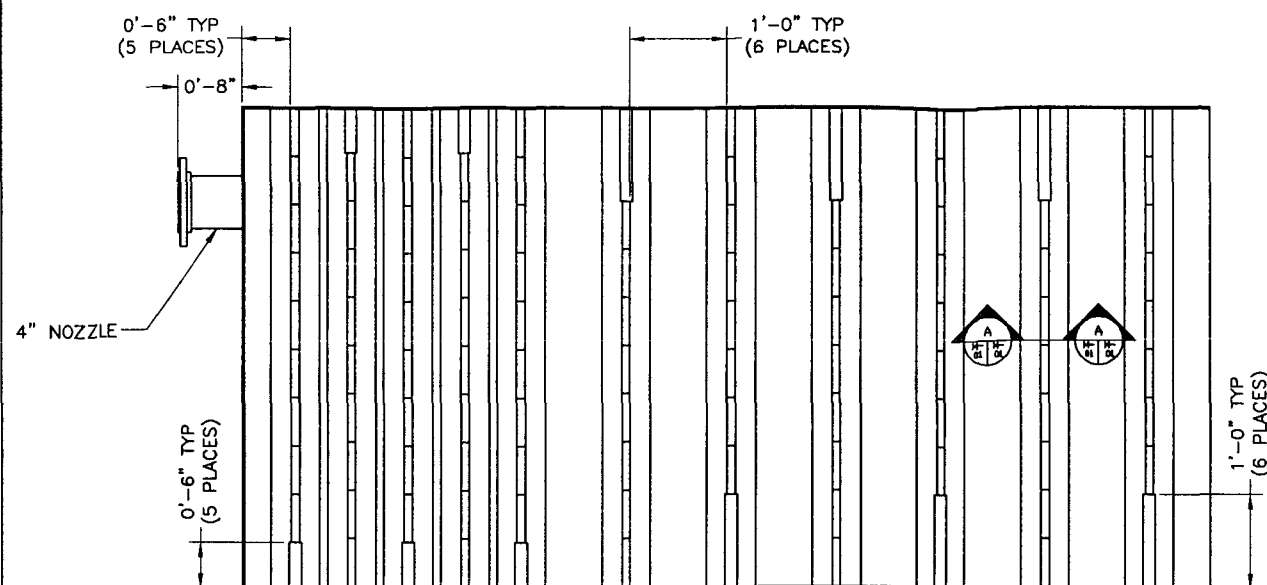
CONTRACT NO.	DRAWING NO.	REV.
03637	P-01	0



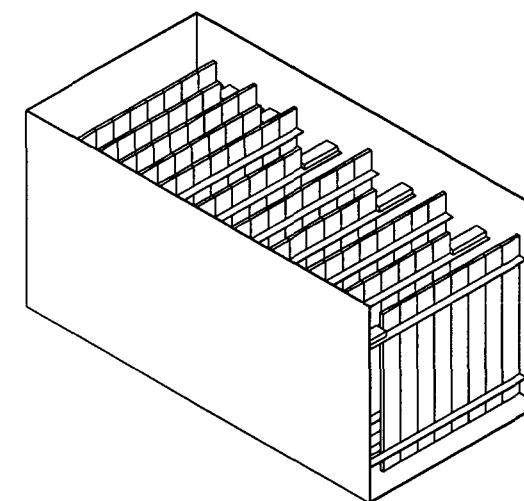
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BY	DATE	BY	DATE	
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CHKD. SGB	7/31/03			
SCALE: 3/4" = 1'-0" DWG SIZE: D				
FILE LOCATION: L:\DATA\03637\CAD\CURRENT\P-02.DWG				
 THE ADVENT GROUP, INC. NASHVILLE, TENNESSEE				
STORMWATER TREATMENT SYSTEM SECTIONS & DETAILS				
SOLUTIA KRUMMRICH SAUGET, ILLINOIS				
CONTRACT NO.	DRAWING NO.	REV.		
03637	P-02	0		



SECTION A-A
SCALE: 1" = 1'-0"



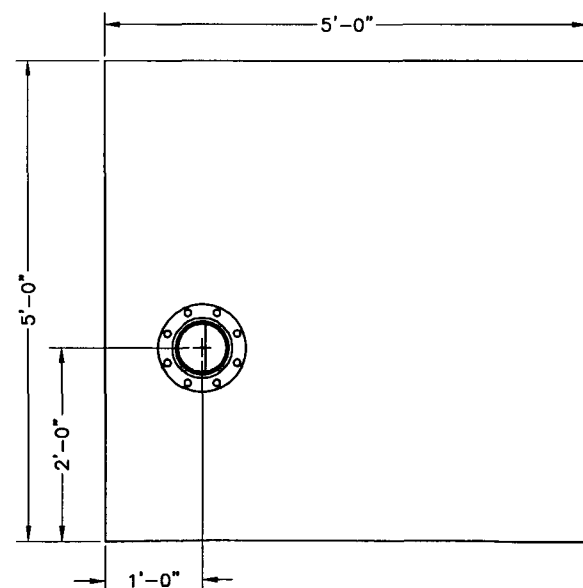
TOP VIEW



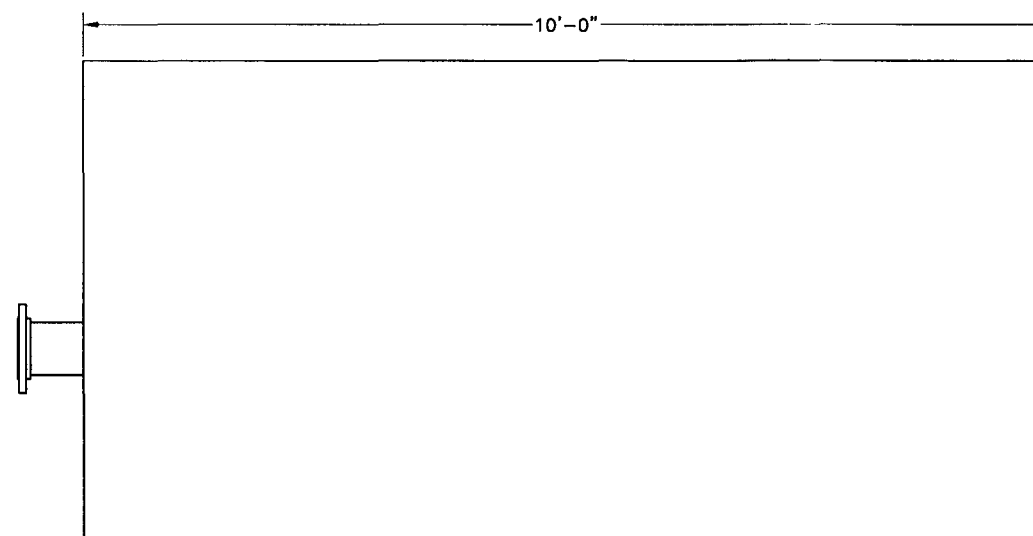
ISO VIEW

NOTE:

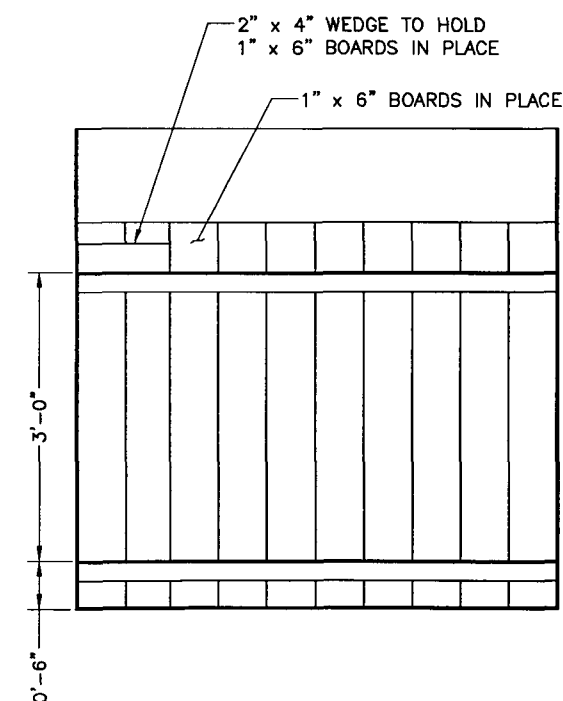
1. TANK WILL BE WELDED STEEL; 1/4" THICK.
2. 3- 5'-0" x 10'-0" SHEETS (2 SIDES & BOTTOM)
3. 1- 5'-0" x 5'-0" SHEET (END WALL)



LEFT SIDE VIEW



FRONT VIEW
SCALE: 1" = 1'-0"



RIGHT SIDE VIEW

0	FOR CONSTRUCTION	11/13/03	SGB	RLR
REV	DESCRIPTION	DATE	APPR. BY	MADE BY

REVISIONS



BY	DATE	BY	DATE
DRAWN RLR	10/6/03	APPR. CSR	10/6/03
CHKD. GB	10/6/03		
SCALE: 1" = 1'-0"	DWG SIZE: D		
FILE LOCATION: L:\DATA\03637\CAD\CURRENT\M-01.DWG			



THE ADVENT GROUP, INC.
NASHVILLE, TENNESSEE

FOCCULATION TANK
SECTION AND DETAILS

SOLUTIA KRUMMRICH
SAUGET, ILLINOIS

CONTRACT NO.	DRAWING NO.	REV.
03637	M-01	0